



TITLE: A METHOD OF PERFORMING BACK-END MANUFACTURING OF AN INTEGRATED CIRCUIT DEVICE

Inventor(s): Thurman J. Rodgers, Bo Soon Chang

USSN: 10/085,716

Attorney Docket #: CYPR-PM01010

1/15

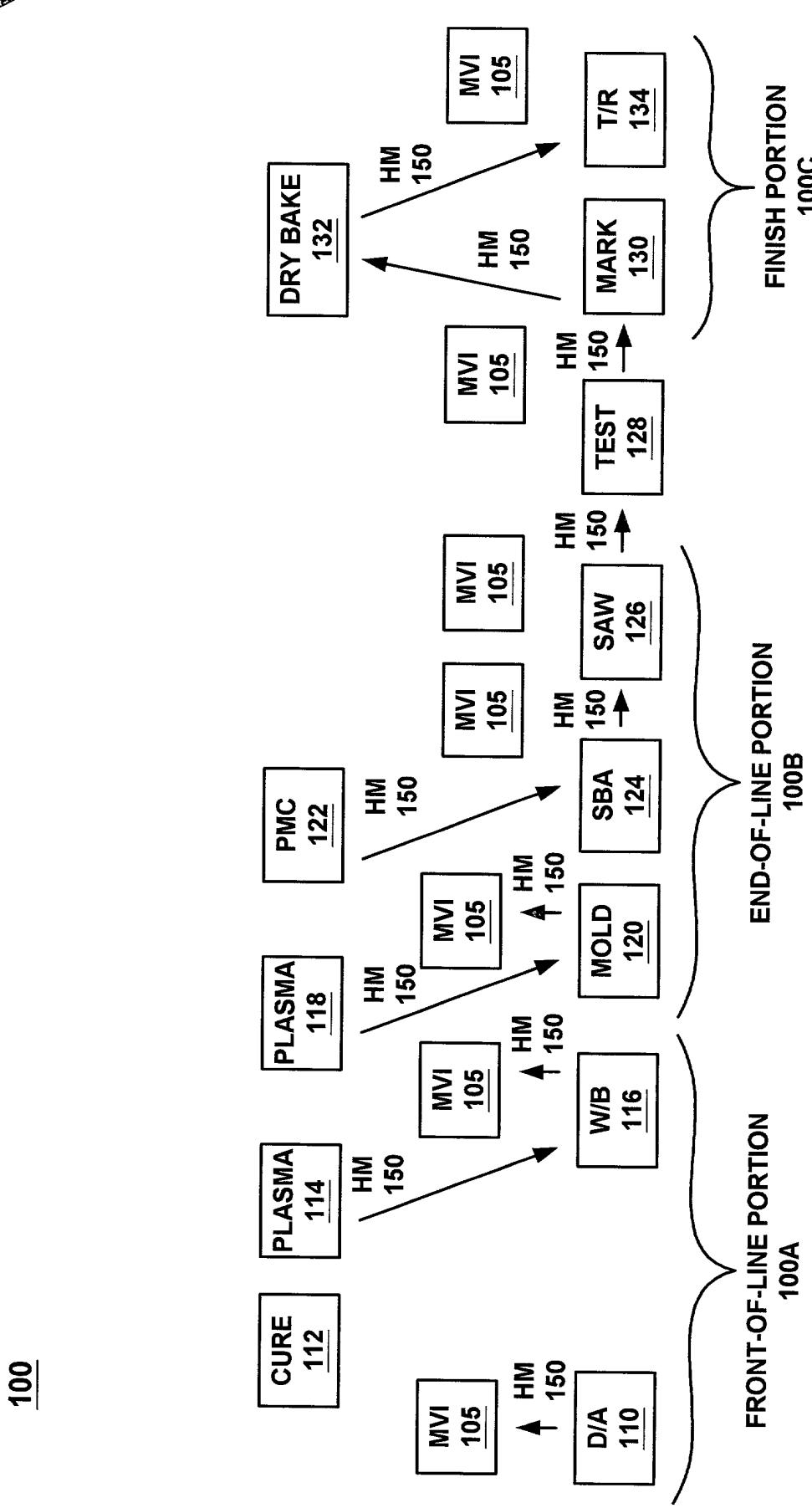


FIGURE 1



200

TITLE: A METHOD OF PERFORMING BACK-END MANUFACTURING OF AN INTEGRATED CIRCUIT DEVICE
Inventor(s): Thurman J. Rodgers, Bo Soon Chang
USSN: 10/085,716 Attorney Docket #: CYPR-PM01010

2/15

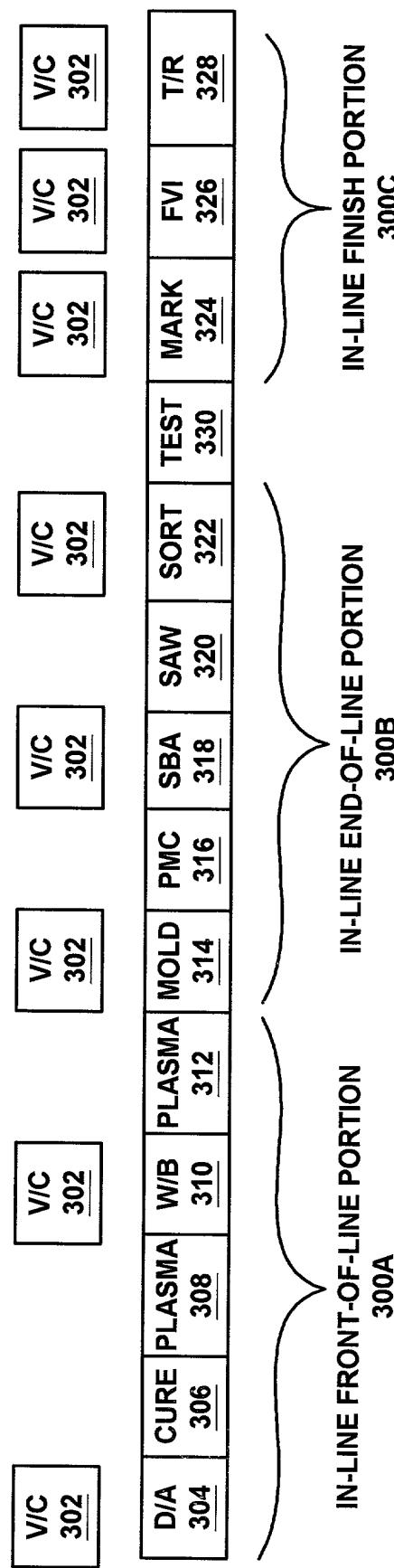


FIGURE 2



TITLE: A METHOD OF PERFORMING BACK-END MANUFACTURING OF AN INTEGRATED CIRCUIT DEVICE
Inventor(s): Thurman J. Rodgers, Bo Soon Chang
USSN: 10/085,716 Attorney Docket #: CYPR-PM01010

3/15

IN-LINE FRONT-OFF-LINE PORTION
300A

V/C
302

V/C
302

D/A	CURE	PLASMA	W/B	PLASMA
304	<u>306</u>	<u>308</u>	<u>310</u>	<u>312</u>

FIGURE 3A



TITLE: A METHOD OF PERFORMING BACK-END MANUFACTURING OF AN INTEGRATED CIRCUIT DEVICE
Inventor(s): Thurman J. Rodgers, Bo Soon Chang

Attorney Docket #: CYPR-PM01010

4/15

IN-LINE END-OF-LINE PORTION
300B

V/C
302

V/C
302

V/C
302

MOLD	PMC	SBA	SAW	SORT
314	316	318	320	322

FIGURE 3B



TITLE: A METHOD OF PERFORMING BACK-END MANUFACTURING OF AN INTEGRATED CIRCUIT DEVICE
Inventor(s): Thurman J. Rodgers, Bo Soon Chang
SEP 3 0 2002
USSN: 10/085,716

Attorney Docket #: CYPR-PM01010

5/15

IN-LINE FINISH PORTION
300C

V/C
302

MARK	FVI	T/R
<u>324</u>	<u>326</u>	<u>328</u>

FIGURE 3C



TABLE: A METHOD OF PERFORMING BACK-END MANUFACTURING OF AN INTEGRATED CIRCUIT DEVICE
Inventor(s): Thurman J. Rodgers, Bo Soon Chang
Attorney Docket #: CYPR-PM01010

6/15

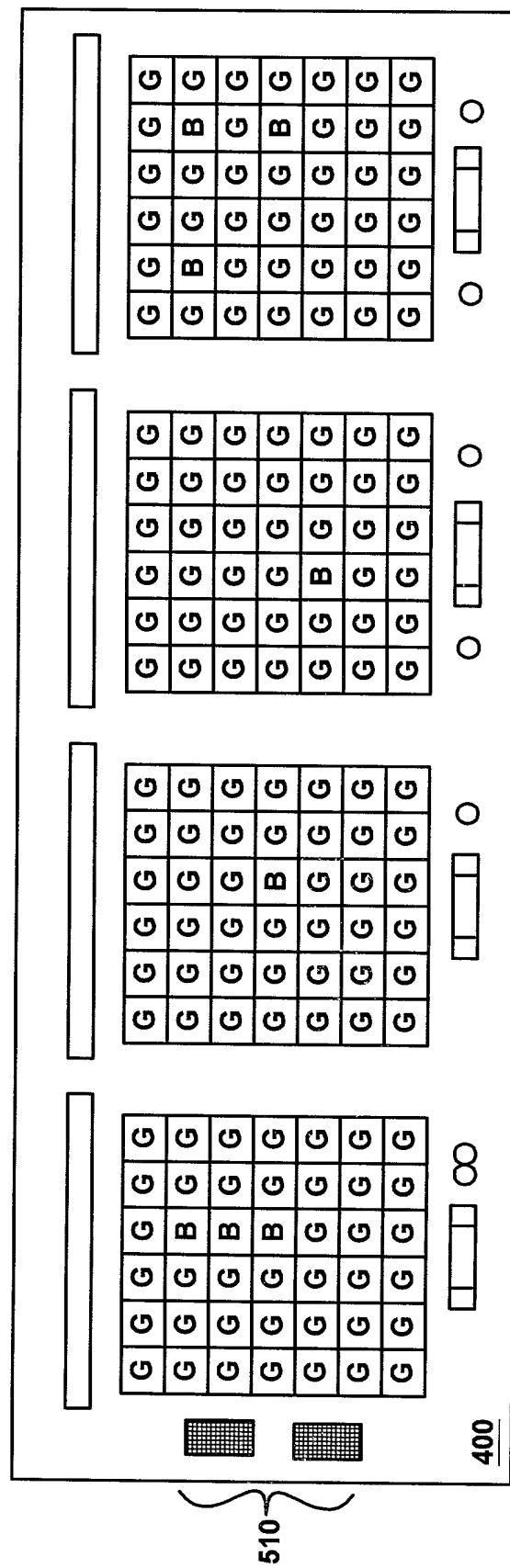


FIGURE 4



TITLE: A METHOD OF PERFORMING BACK-END MANUFACTURING OF AN INTEGRATED CIRCUIT DEVICE
Inventor(s): Thurman J. Rodgers, Bo Soon Chang
Attorney Docket #: CYPR-PM01010

7/15

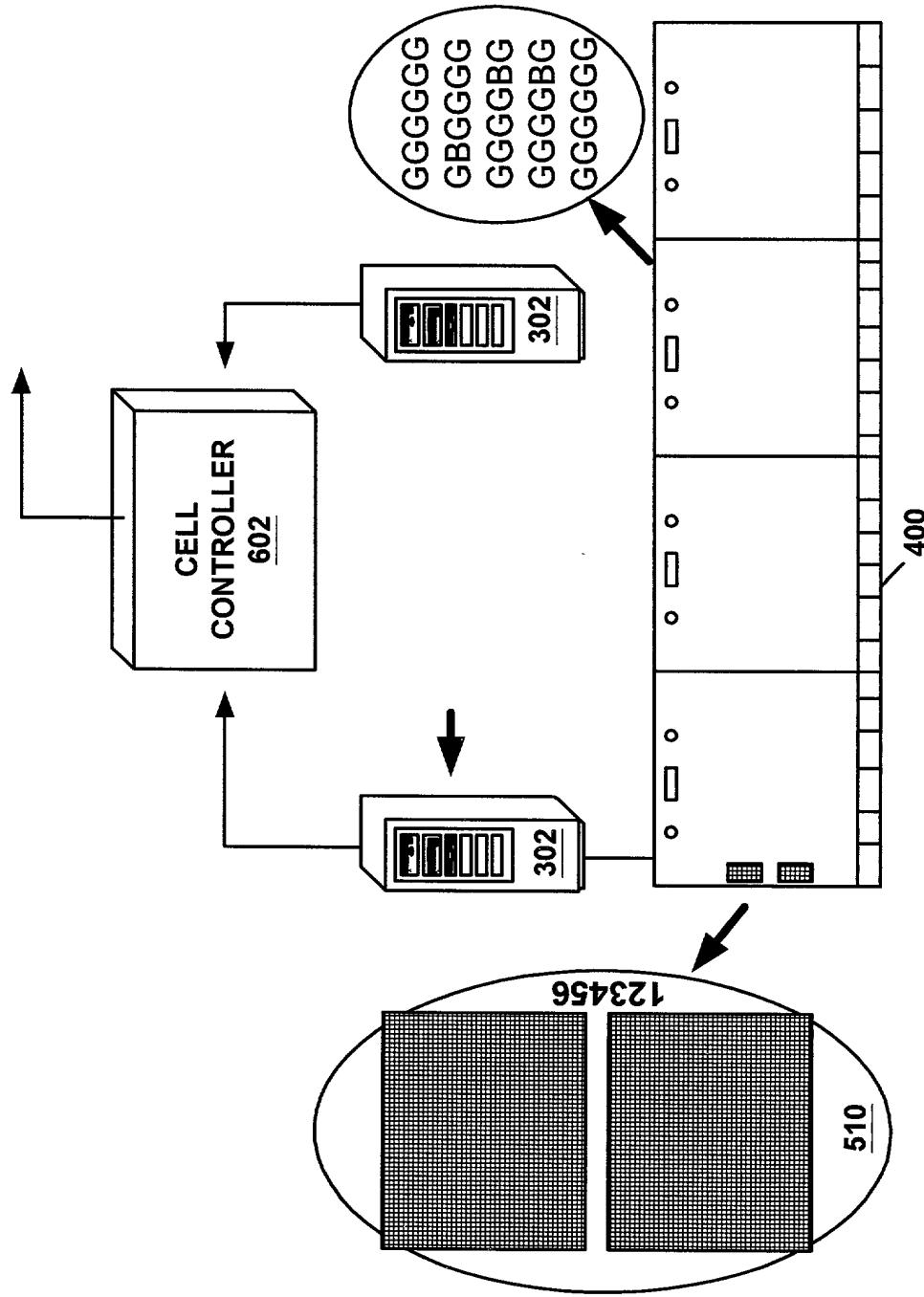


FIGURE 5

8/15

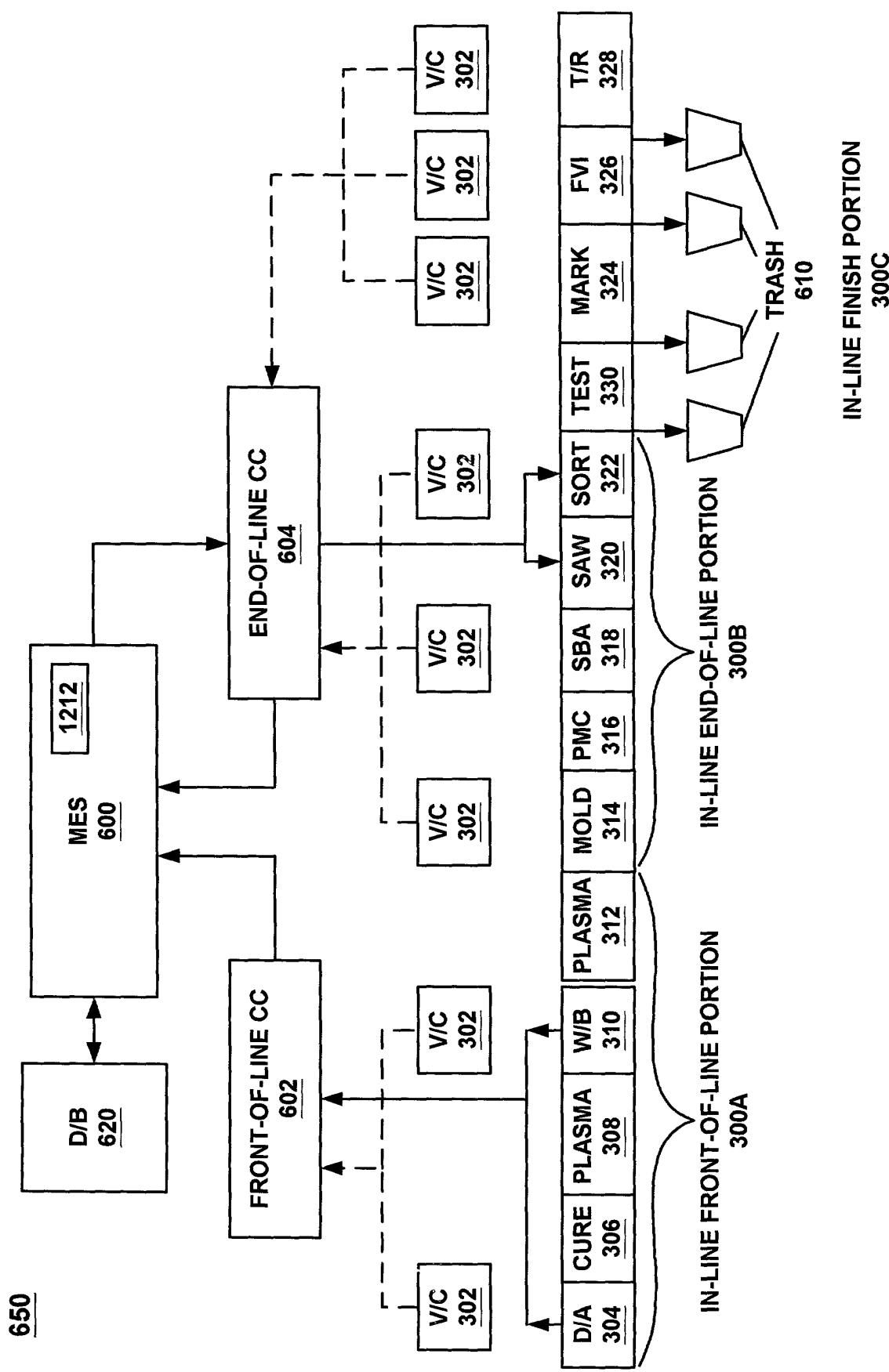


FIGURE 6



TITLE: A METHOD OF PERFORMING BACK-END MANUFACTURING OF AN INTEGRATED CIRCUIT DEVICE
Inventor(s): Thurman J. Rodgers, Bo Soon Chang
USSN: 10/085,716

Attorney Docket #: CYPR-PM01010

9/15

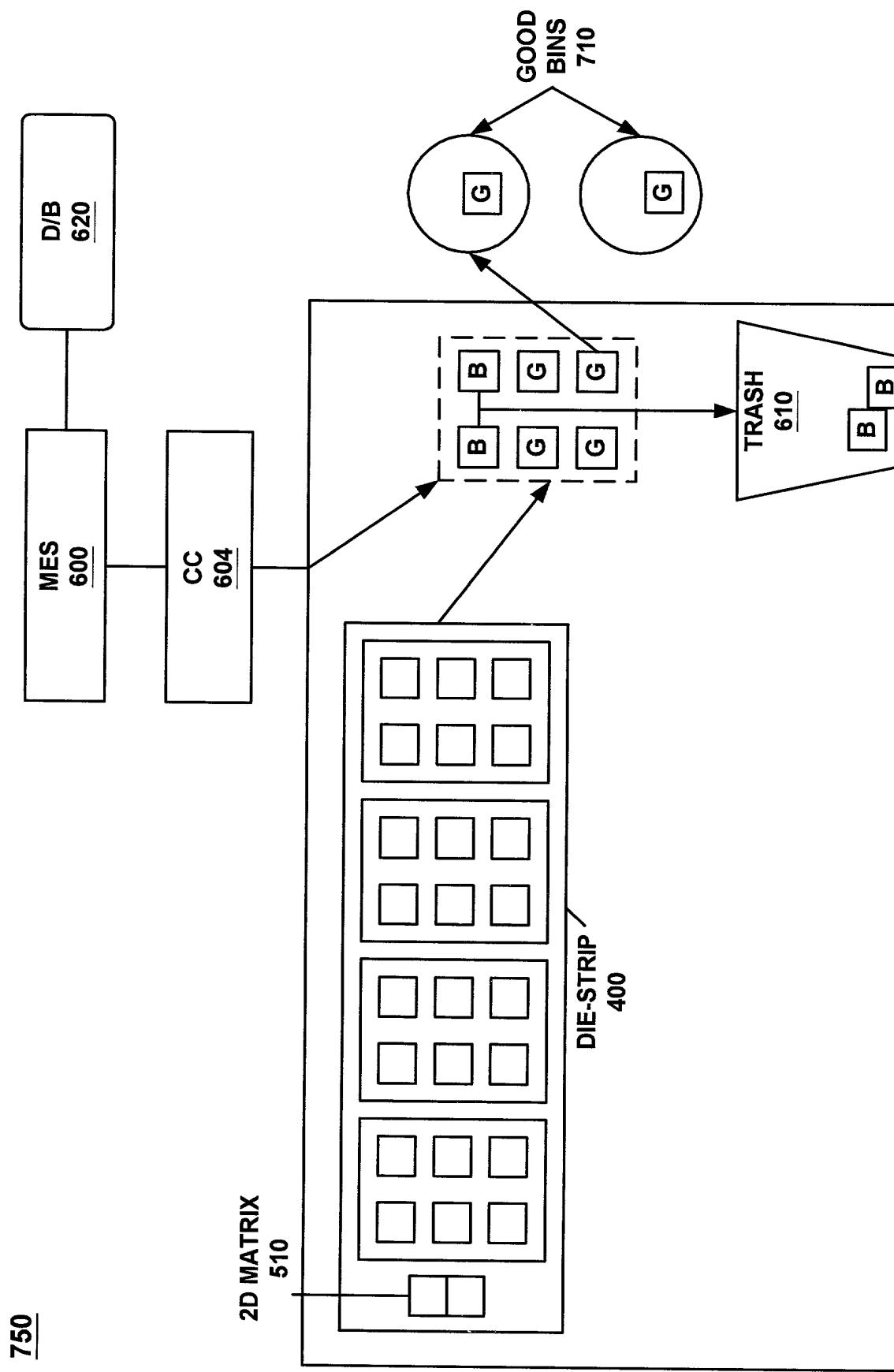


FIGURE 7



TABLE: A METHOD OF PERFORMING BACK-END MANUFACTURING OF AN INTEGRATED CIRCUIT DEVICE
Inventor(s): Thurman J. Rodgers, Bo Soon Chang
Attorney Docket #: CYPR-PM01010

10/15

800

START

PROCESSING A DIE-STRIP THROUGH A FRONT-OF-LINE ASSEMBLY PORTION WHICH COMPRISSES A PLURALITY OF SUB-STATIONS OPERATING ON AN IN-LINE BASIS.

802

AUTOMATICALLY PROVIDING THE DIE-STRIP TO AN END-OF-LINE ASSEMBLY PORTION.

804

PROCESSING THE DIE-STRIP BY THE END-OF-LINE ASSEMBLY PORTION WHICH COMPRISSES A PLURALITY OF SUB-STATIONS OPERATING ON AN IN-LINE BASIS.

806

AUTOMATICALLY PROVIDING THE DIE-STRIP TO A TEST ASSEMBLY PORTION.

808

TESTING THE DIE-STRIP USING THE TEST ASSEMBLY PORTION.

810

AUTOMATICALLY PROVIDING THE DIE-STRIP TO A FINISH ASSEMBLY PORTION.

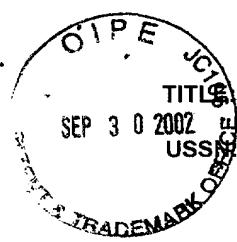
812

PROCESSING THE DIE-STRIP BY THE FINISH ASSEMBLY PORTION WHICH COMPRISSES A PLURALITY OF SUB-STATIONS OPERATING ON AN IN-LINE BASIS.

814

END

FIGURE 8



TITLE: A METHOD OF PERFORMING BACK-END MANUFACTURING OF AN INTEGRATED CIRCUIT DEVICE
Inventor(s): Thurman J. Rodgers, Bo Soon Chang
SEP 3 0 2002 Attorney Docket #: CYPR-PM01010
USSN: 10/085,716

11/15

900

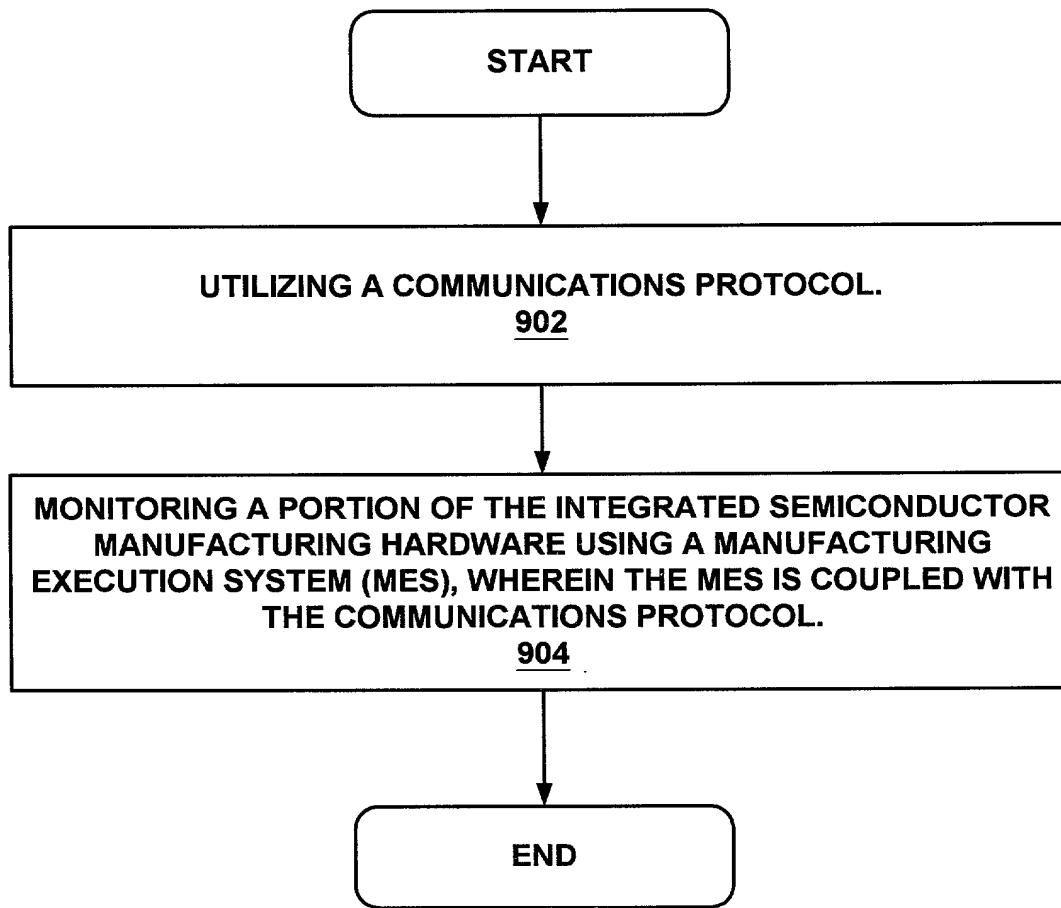


FIGURE 9



TITLE: A METHOD OF PERFORMING BACK-END MANUFACTURING OF AN INTEGRATED CIRCUIT DEVICE
Inventor(s): Thurman J. Rodgers, Bo Soon Chang
USSN: 10/085,716 Attorney Docket #: CYPR-PM01010

12/15

1000

START

IMPLEMENTING A TRACKING PROCESS FOR THE DIE-STRIP WHICH IDENTIFIES INDIVIDUAL DIE-STRIPS AND THEIR RESPECTIVE LOCATIONS AS THEY TRAVERSE THROUGH THE IN-LINE ASSEMBLY LINE.

1002

ACCESSING AN ELECTRONIC DIE-STRIP MAP DATABASE THAT PROVIDES PARAMETER STORAGE FOR EACH INDIVIDUAL SEMICONDUCTOR COMPONENT WITHIN EACH DIE-STRIP.

1004

UTILIZING THE TRACKING PROCESS TO UPDATE THE ELECTRONIC DIE-STRIP MAP DATABASE AT EACH SUBSTATION THAT COLLECTS PARAMETER INFORMATION.

1006

CATEGORIZING THE DIE ON THE DIE-STRIP BASED ON INFORMATION MAINTAINED BY THE ELECTRONIC DIE-STRIP MAP DATABASE AND SPECIFICALLY REJECTING BAD DIE AND USING PARAMETER INFORMATION TO SORT DIE.

1008

END

FIGURE 10



TITLE: A METHOD OF PERFORMING BACK-END MANUFACTURING OF AN INTEGRATED CIRCUIT DEVICE

Inventor(s): Thurman J. Rodgers, Bo Soon Chang

Attorney Docket #: CYPR-PM01010

13/15

1100

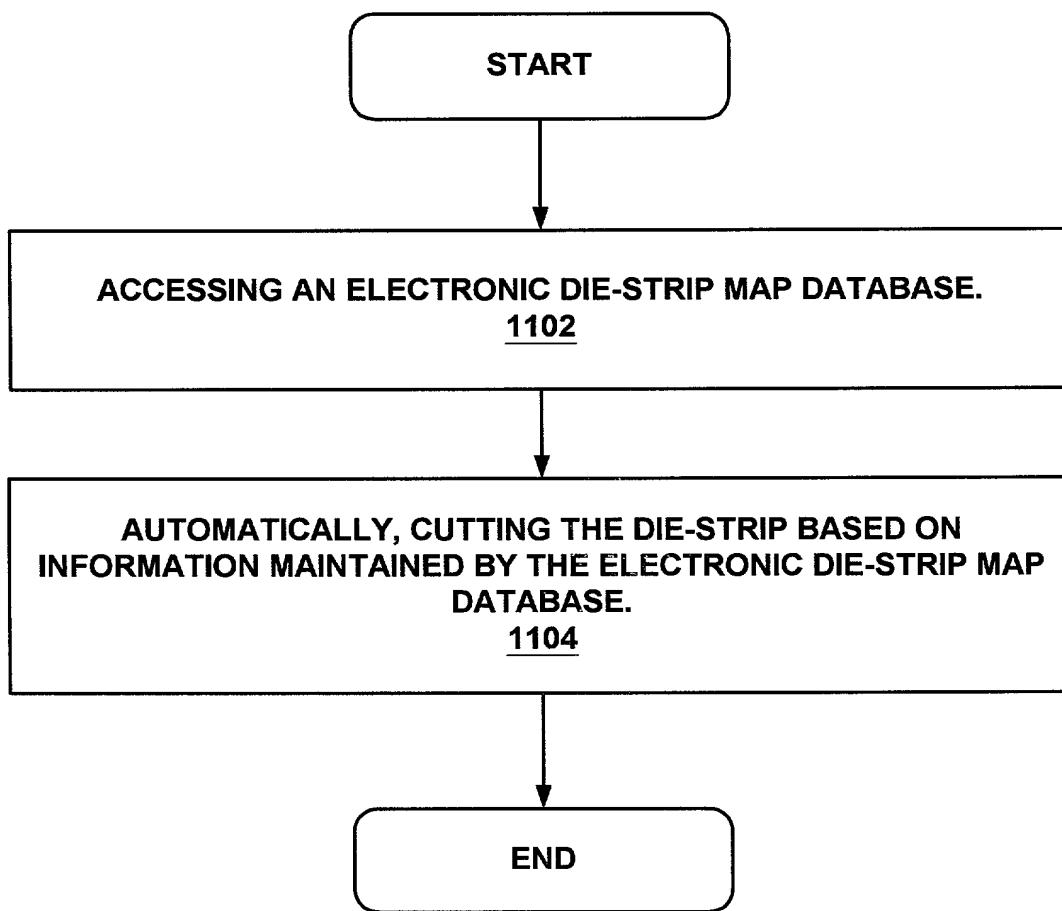


FIGURE 11



TITLE: A METHOD OF PERFORMING BACK-END MANUFACTURING OF AN INTEGRATED CIRCUIT DEVICE

Inventor(s): Thurman J. Rodgers, Bo Soon Chang

Attorney Docket #: CYPR-PM01010

14/15

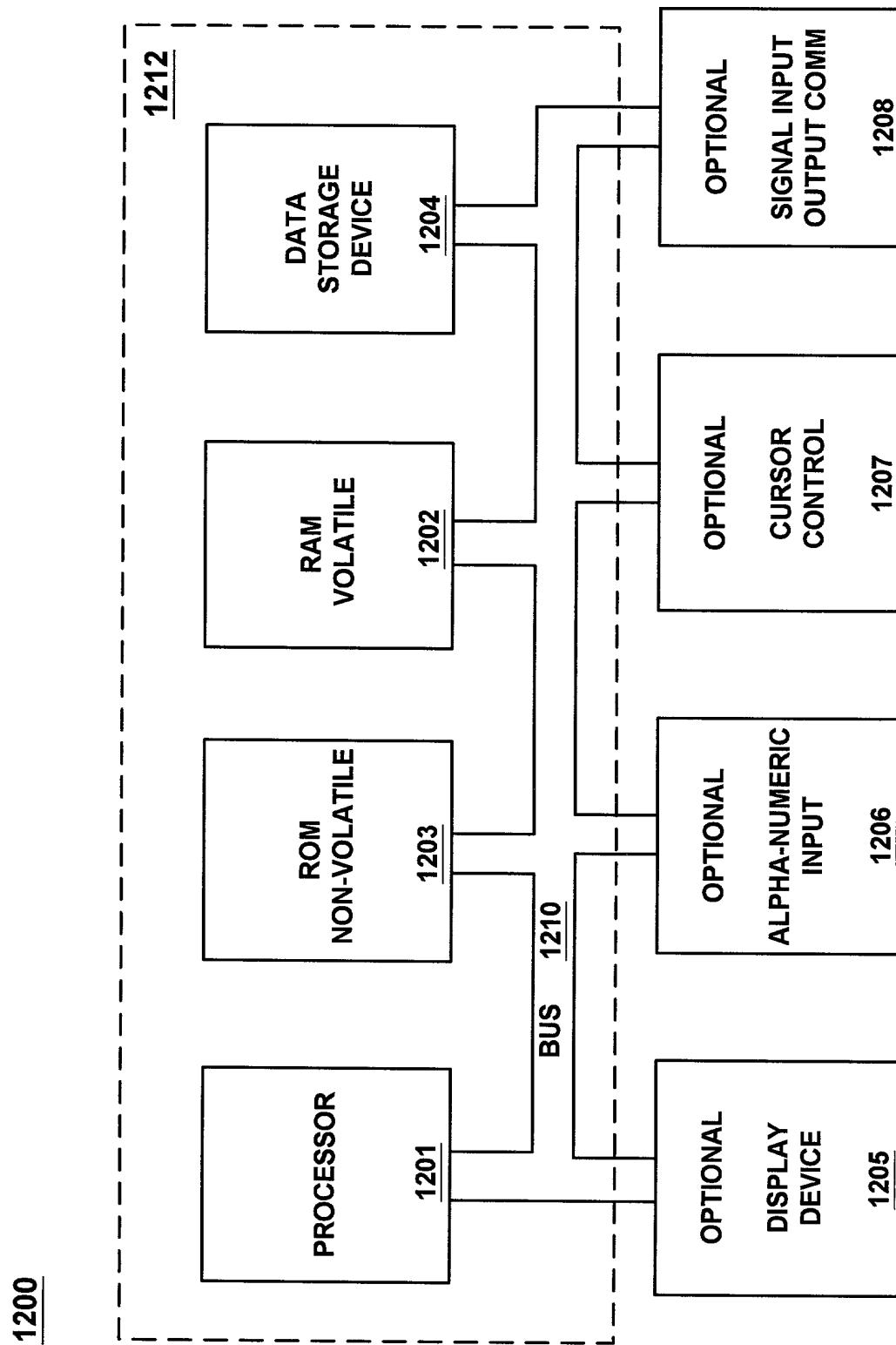


FIGURE 12



TITLE: A METHOD OF PERFORMING BACK-END MANUFACTURING OF AN INTEGRATED CIRCUIT DEVICE

Inventor(s): Thurman J. Rodgers, Bo Soon Chang

Attorney Docket #: CYPR-PM01010

1350

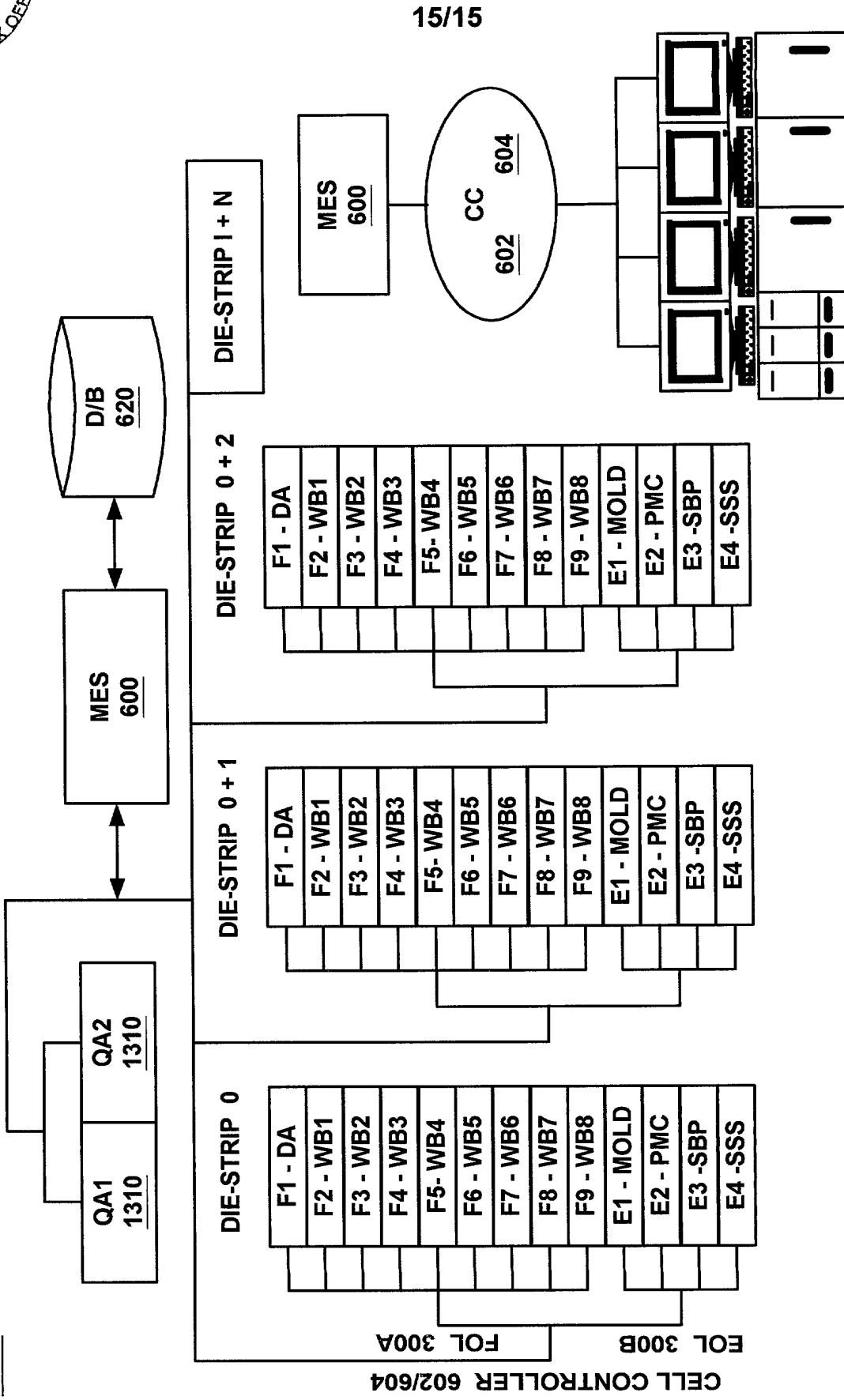


FIGURE 13